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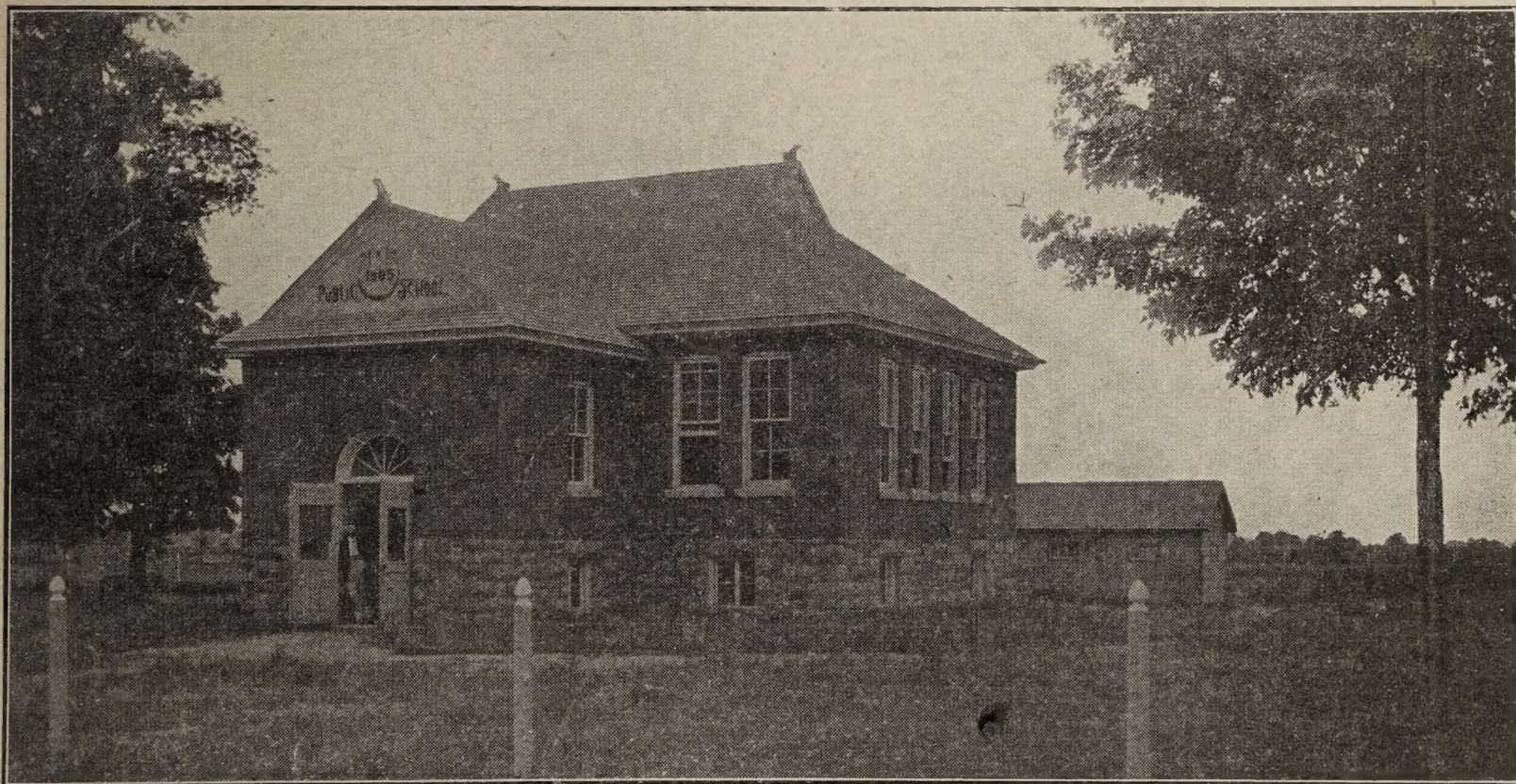
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## Agricultural Education

### The Carleton County Potato-Growing Contest, 1912

- I. Teachers' Reports on the Value of the Work.
- II. Organization of and Rules for the Contest.
- III. Results of Contest and Records of Winner of First Prize.
- IV. Reports of Work of other Prize Winners.
- V. Tables showing Scores, Expenses and Profits.
- VI. Addresses given at Public Meeting, Court House, Ottawa.



S. S. No. 5 GLOUCESTER TP., BOWESVILLE.

Four of the competitors attended this school. School Gardening has been carried on here for about ten years. Note the neat wire fence, the seat under the tree, the garden tool-house, and how effectively a few good shade trees frame in the school.

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1913

NOTE:—One copy is for the teacher and should be retained in the school. The other copy is for use in the School Section. PLEASE KEEP IT IN CIRCULATION.



# Carleton County Potato-Growing Contest, 1912

*For this report the Department of Education is indebted to L. H. Newman, Esq., B.S.A., Secretary of the Canadian Seed Growers' Association, Ottawa.*

In the account of this work, teachers, trustees, and others interested in education in general and agricultural education in particular, will find evidence of the great possibilities of a simple practical line of work, valuable not only for the sound agricultural instruction involved, but even more valuable for the good training for all-round good citizenship.

Through the co-operation of educational forces, similar work might readily be done in hundreds of localities in Ontario, not with potatoes alone but also with corn, oats, barley, alfalfa, turnips or mangels. Schools undertaking such work may address the Director of Elementary Agricultural Education, Ontario Agricultural College, Guelph, for suggestions or help.

## I.—TEACHERS' REPORTS ON THE VALUE OF THE WORK

Miss Potter, Continuation Class Teacher in the Bowesville School, reports as follows:

"Two of my pupils of the Continuation Class, Bowesville, and two of the public school pupils entered the Potato-Growing Contest last year.

"The variety they planted was Carman No. 1 and the yield of at least two of the four was far above the average of the crops of the farmers in the neighbourhood. One of the public school boys won the third prize in the Contest; another gained one of the extra prizes given.

"I think this kind of work helps to keep the pupils interested in school, for this is a branch of the school work; it teaches the child industry and independence, for he must do the work himself; it shows him the value of money, for he must keep an account of all money spent and seek to get back good interest on that money when he sells his potatoes in the fall. He sees, too, the benefit of having system in his work and comes to consider farming as a science, not a drudgery.

"I think this is one of the many new methods of awakening the keen interest and sympathy of the farm child and of helping him to forget the old-time pictures of hardship on the farm.

"North Gower, Feb. 17, 1913."

Miss O'Rielly, Public School Teacher in the same school, says:

"It was not a school movement exactly, though my colleague and myself encouraged our pupils to take part in it. We had four pupils enter, but only three continued. I superintended the digging and weighing of the potatoes on the pupils' plots.

"I found that the contest brought me closer to the home-life and ideas of the boys than anything else had done; that I developed a higher respect for the abilities of those boys than I had had before. Educationally, the boys learned from experience many things about one of the chief occupations of the locality—potato-growing—that they had never taken the trouble to try to learn before. I got better work from one of the boys—the most successful one—in his school work and after the close of the contest than I had got before. From a financial standpoint, potato-growing with them proved to be a **success**; after paying expenses, some of them, if not all, started a bank account with proceeds. I think that, for the first time, they realized that education was a necessity in farming, and that the teaching of agriculture in school was something more than a 'frill.'

"These were things which struck me about the Contest. I should like to see many more boys enter it next year.

"Bowesville, March 1, 1913."



## II.—ORGANIZATION OF AND RULES FOR THE CONTEST

**Inauguration.**—Early in the Spring of 1912 notice was given through the press, and by special circular, of the inauguration of a *Potato-Growing Contest* for the County of Carleton, Ontario, open to boys between twelve and eighteen years of age who live on farms of not less than fifty acres in area. The Committee in charge consisted of the following gentlemen:

*Chairman:* Mr. R. B. Whyte, Ottawa.

*Secretary:* Mr. L. H. Newman, Sec. Canadian Seed Growers' Association, Canadian Building, Ottawa, Ont.; Mr. W. D. Jackson, Agricultural Representative for Carleton County, Carp, Ont.; Mr. W. T. Macoun, Horticulturist, C. E. Farm, Ottawa.

**The Objects of this Contest were as follows:** 1. To stimulate an interest among the boys in farm work by showing them that there is more in the soil than is ever gotten out of it and that by proper methods the profits from crop raising may often be immensely increased.

2. To give the boys something definite to do and to encourage a friendly rivalry among them.

3. To pave the way toward the formation in the County of some definite organization such as a *Potato-Growing Association* or *Club*.

4. To provide a simple means of instructing and directing boys in the first principles of successful farming; namely, proper soil cultivation, seed selection, methods of planting and cultivation, rotation of crops, use of implements, and the great importance of keeping careful farm accounts.

**Prizes.**—In order to arouse special interest and to keep up the enthusiasm, substantial prizes were offered by Mr. R. B. Whyte of Ottawa, who took the initiative in inaugurating the competition.

**Plot Inspection.**—Plans were also laid to have each boy receive instructions on his own plot through Mr. Jackson of Carp, County Representative, who undertook to visit each competitor and to submit a report on the field work of each. These reports proved useful in awarding the prizes.

**Instruction of Competitors.**—In order to assist competitors in their work, an eight-page booklet entitled "*Directions for the Culture of Potatoes*" was prepared and sent to them.

**Rules Governing Competition.**—1. Competitors must not be under 12 or over 18 years of age on May 15th, 1912, the day that entries to the competition close.

2. Each competitor must operate a potato plot of exactly 1-10 of an acre.



3. The variety grown must be of good cooking quality. Such varieties as *Carman No. 1*, *Vermont Gold Coin*, or *Green Mountain* are recommended. These varieties may be obtained from Kenneth McDonald & Sons or from Graham Bros., Ottawa, Ont. Where the competitor desires to operate with any variety other than those specified above, he must submit the name of such variety to the committee for approval.

4. Each competitor must do all the work himself, except in the case of the younger boys who may be assisted with such work as ploughing, etc.

5. An accurate account must be kept showing the expenses and profits of the enterprise. This will include rent of land, cost of labour, seed, manure, spraying, etc.

6. Scale of charges to be used by each competitor:—Rent of land, \$3.00 per acre; each horse, 10c. an hour; each man, 20c. an hour; stable manure, \$1.00 per ton; seed at market price per bushel; spraying material at current prices.

7. A record of such matters as date of planting, variety planted, etc., must be kept by each competitor who will be supplied with blank forms for this purpose. Where such record is supplemented by a short history or story of the work, due credit will be allowed in making the awards.

8. The plot of each competitor will be inspected during the growing season by a member of the committee who will judge it according to a certain scale of points. The score awarded for field culture will be considered in making the final awards as below indicated.

9. The digging and weighing of the crop must be supervised by a school teacher, Justice of the Peace, clergyman or other qualified individual who will certify as to the correctness of the report of yield.

10. 1 bushel of tubers, properly labelled and representing the average quality, smoothness, and size of tubers produced shall be sent to the County Fair at Richmond in September. The score awarded by the Judge on this exhibit will be considered in awarding the prizes.

11. The prizes will be awarded on the following basis:—

|  |             |
|--|-------------|
| (a) Report of Inspector on thoroughness of field culture, etc.....   | 100 points. |
| (b) Certified report of yield as submitted by competitor .....       | 100 "       |
| (c) Award of Judge on one bushel exhibit sent to Richmond Fair..     | 100 "       |
| (d) Written report of competitor as called for in Sections 5 and 7.. | 100 "       |

Total ..... 400 points.

12. Reports required of each competitor as per Sections 5 and 7 must be sent to the Secretary, Mr. L. H. Newman, Secretary of the Canadian Seed Growers' Association, Canadian Building, Ottawa, before the end of September, 1912.

13. But one entry will be allowed each competitor.

14. All applications for entries (see form inclosed) must be in the hands of the Secretary by May 15th, 1912.



### III.—RESULTS OF CONTEST AND RECORDS OF WINNER OF FIRST PRIZE

**Contest and Winners.**—Applications for entry in this contest were received from 35 boys, 22 of whom carried out the work in all its details. The names of the first six winners are as follows:—

Harvey S. Wright, Carsonby, Ont.; J. R. Thompson, Cummings' Bridge; W. Potvin, Bowesville; Owen F. Laffin, Dwyer Hill; H. W. Graham, Huntley; Fred Spindler, Billings' Bridge.

**Winner of First Prize.**—An analysis of the data submitted by each competitor and upon which the awards were made is illuminating. Thus we find that Harvey S. Wright, the competitor winning first prize, cultivated



a plot of the exact requirements, that he chose a good piece of alfalfa clover sod which he ploughed down when the clover was about 6 in. high. The land was worked up in good condition and about a ton of manure applied. No commercial fertilizer was used. Planting was done on the 11th of May, the potatoes having been cut the previous day. Lime was sprinkled upon the cuts immediately after cutting. The soil was stirred four times at intervals of from one week to ten days. The tops were sprayed for bugs four times, the last spraying containing

Bordeaux Mixture as a protection against blight. At no time were the tops badly eaten by bugs. At digging time about  $2\frac{1}{2}$  bushels of especially good hills were selected to plant a seed plot next year. The report given in the blank forms by this competitor was supplemented by a good diary giving a detailed account of the steps taken throughout the season.

The total value of crop on the 1-10 acre plot was \$21.38. The total cost of growing this plot was \$9.10, leaving a profit of \$12.28, or \$122.80 per acre. The net profit was not quite so great as in the case of some of the other competitors, but this constituted only one of the points upon which the awards were made.

The above competitor obtained considerably the highest field score and was only one half a point behind the competitor obtaining the highest score on his exhibit at the County Fair.

In the certified report of yield, a slightly lower score was obtained than that awarded to other competitors. Considering the four points upon which the prizes were awarded and which are indicated in Section 11 of the rules, Master Wright was an easy winner.

In order to facilitate the making of comprehensive reports on their work, each competitor was provided with a Report form.

The reports on his work are reproduced in the following pages.



# FIELD NOTES ON POTATO PLOT-1912.

Full name of competitor..... Harry Stevens Wright  
 Age on May 15th. 1912..... twelve years.  
 Name of parent or guardian..... John Wright  
 Post office address..... Carlsonby Township..... North Gower  
 Variety of potatoes planted on plot..... Green Mountain  
 Where was seed obtained?..... from Demsey seed and flour Merchant  
 Did your plot consist of exactly 1-10 acres?..... yes  
 What were the exact measurements?..... 106 1/2 ft long and 40 wide  
 No. of rows..... 6 Distance apart of rows..... 30 inches No. plants or hills in each row..... 94  
 Distance apart of each plant in the row..... 14 inches Length of each row..... 106 1/2 ft  
 Character of soil..... soil was warm and dry and good soil  
 Character of sub-soil..... lime stone loam 2 ft deep  
 What crop was grown on this land in 1911?..... Alfalfa clover  
 Date of going on land this spring (1912)..... May 11th  
 How was it cultivated before planting?..... ploughed out of green sod when alfalfa was six inches high  
 Condition of land at time of planting..... In nice condition  
 How much manure did you apply on your plot?..... one ton  
 Kind of manure applied..... well rotted cow manure  
 Did you use any commercial fertilizers, and if so what kind and how much?..... I used none  
 Date of planting plot..... Potatoes were planted 11th of May  
 Did you use whole or cut potatoes?..... I used cut potatoes  
 If cut potatoes were used, how soon after cutting were they used?..... one day  
 Did you sprinkle lime or land plaster on the sets after cutting?..... I sprinkled lime  
 Did you treat the tubers with formalin to prevent scab?..... no  
 How deep were the sets planted?..... sets planted about five inches deep  
 How was planting done? (by hand, by machine, in furrow or dropped in holes dug with hoe)..... dropped in furrow  
 Number of pounds planted..... I planted fifty pounds of cut potatoes  
 Did all the sets grow and produce a good even stand?..... two or three hills didn't grow  
 Dates of different cultivations between planting and digging time..... 4 times 25th June, July 10th, 18th, 27th  
 Total number of times cultivated..... 4 times  
 Did you cultivate after each heavy rain?..... yes  
 Dates of spraying for bugs..... June 27th, July 8th, 14th 24th  
 Dates of spraying with Bordeaux Mixture..... July 24th  
 Did leaves ever become badly eaten by bugs?..... no  
 Were tops beaten down badly by storms?..... no  
 Date of first frost to blacken tops..... I haven't noticed any frost to blacken tops yet  
 Condition of tops at date of digging..... tops don't look badly yet - I had very good tops. They are not dead yet  
 Date of digging..... 21st Sept.  
 Did you select any specially good hills to sow a seed plot next year, and if so, how many?..... I will save 2 bushels  
 Would you like to do some special work with potatoes again next year?..... I would  
 About what would be the average yield of potatoes per acre in your district this year?..... can't say but expect them good



# EXPENSES IN CONNECTION WITH PLOT.

|   |          |
|---|----------|
| Rent of land (at rate of (\$3.00 per acre)            | 30 cents |
| Cast of labour (a) For horses (at 10c. per hour each) | 50       |
| (b) For competitor (at 10c. per hour)                 | 1.80     |
| (c) For other assistance (at 20c. per hour)           | 4.00     |
| Cost of manure (at \$1.00 per ton)                    | 1.00     |
| Cost of commercial fertilizers                        | none     |
| Cost of seed  | 10       |
| Cost of spraying material                             | .40      |
| Total cost  | \$9.10   |

## RECEIPTS.

|  |         |
|--|---------|
| Total value of salable potatoes on plot at 60c. per bushel | \$21.27 |
| Value of unsalable tubers at 10c. per bushel               | 11¢     |
| Total value  | \$21.38 |

## STATEMENT OF PROFIT AND LOSS.

|  |            |
|--|------------|
| Total value of crop as above                 | \$21.38    |
| Total cost of production                     | 9.10       |
| Net profit                                   | \$12.28    |
| Net cost of producing one bushel (60 pounds) | 2484 cents |
| Net profit per acre from the enterprise      | \$122.80   |

I hereby certify that the information submitted in this Report Form is correct and that I have conducted the work according to the specified rules of the Competition to the best of my ability.

(Signed) *Harry S. Wright*  
(Competitor.)  
*Carsonby, Ont*

Dated at *Carsonby*  
this *21st* day of  
*September* 1912.

[TEAR OFF HERE]

## CARLETON COUNTY POTATO GROWING CONTEST.

Special Exhibit of 1 bush. taken from plot of Competitor as per Rule 10 of the Competition.

### ENTRY FORM.

The undersigned proposes to exhibit 1 bushel of *Green Mountain* potato  
(variety)  
at the Carleton County Fair in the Section specially provided for competitors in the  
above contest

(Signed) *Harry S. Wright*  
(Competitor's name)  
*Carsonby*

Date *September 1st* 1912.

To the Secretary  
Carleton County Fair, Richmond, Ont.



REPORT OF YIELDS.

Weight of Marketable tubers (those over 2 in. in diameter and free from disease)

..... 2127 ..... pounds.

Weight of diseased tubers..... (none) ..... pounds.

Weight of small unsalable tubers (those less than 2 in. in diameter and free from  
disease)..... 71 ..... pounds.

Total weight of tubers on whole plot..... 2198 ..... pounds.

CERTIFICATE OF YIELDS BY TEACHER OR OTHER PERSON NOT DIRECTLY INTERESTED

I hereby certify that I personally supervised the digging and weighing of the potatoes on the above mentioned plot and that the report of the yields as submitted above is correct.

Dated at..... North Gosport  
this 21<sup>st</sup> day of  
September 1912.

(Signed)

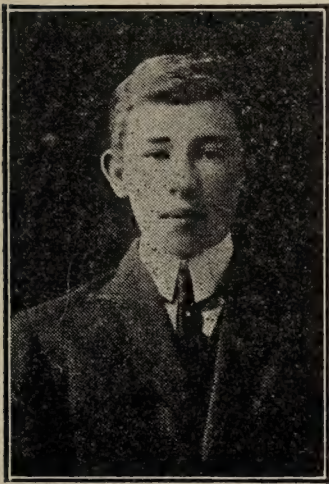
Clarke Lang  
(Teacher, Minister, J.P., etc.)  
Justice of the Peace for Carlisle

(OVER)



## IV.—REPORTS OF WORK OF OTHER PRIZE WINNERS

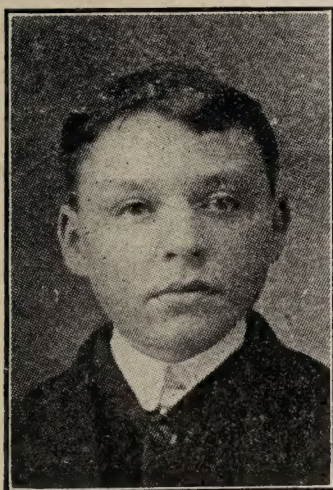
**The Second Prize Winner.**—Mr. J. R. Thompson, winner of the prize, obtained six points less on the thoroughness of his field culture, although his total yield was considerably higher. The larger yield was probably due to the use of more manure and commercial fertilizers, 30 pounds of complete fertilizer being used on the 1-10 acre plot.



The bushel of tubers shown at the County Fair by Mr. Thompson scored 12 points less than did that of the competitor winning first place. For his written report, including cost of production and net profit per acre, Mr. Thompson was awarded a slightly higher standing, having put on more work and realizing a higher net profit per acre.

The lower field score and lower score on the final exhibit, however, resulted in reducing this competitor to second place. His work, nevertheless, is worthy of highest commendation.

**The Third Prize Winner.**—Mr. W. Potvin, winner of the third prize, obtained a total score of but one less than that of the second prize winner.



As may be seen in the summary of scores he received 82 points for his field work, 92 points on the yield, 78 points on his bushel exhibit and 91 points on his written report, totalling 343 points out of the 400 points possible. The variety he grew was Carman No. 1; this variety was chosen by six of the prize winners while Green Mountain was chosen by twelve.

**The Fourth Prize Winner.**—The winner of the fourth prize, Mr. Owen F. Laffin, came second in the field score, sixth on the report of yield, sixth on exhibit at the County Fair, and fourth on the written report and net profit. He claims to have obtained a yield of about 160 bushels higher than the average in the district. This grower planted his potatoes 12 in. apart in the drill, while 14 in. was the minimum recommended. His soil at planting time was wet, while, judging from his report, it was also lighter in character than that of the other contestants. These facts may have contributed to the lower place which he has taken.



**The Fifth Prize Winner.**—Mr. W. H. Graham, winner of the fifth prize, did excellent work, and submitted a very creditable essay on his operations during the season.



His plot was planted according to the regulations and, according to his report, was well prepared. Barnyard manure at the rate of twenty tons per acre was applied, cut potatoes were planted two hours after cutting, tubers being treated with formalin to prevent scab. This grower was one of the very few who applied this treatment. Bordeaux Mixture was also used, while cultivation after each heavy rain was practised. This competitor employed labour other than his own to an extent somewhat greater than we would like to have seen, although perhaps this was justified when we consider the net profit per acre, this being \$102.20. The main point in which this grower lost to the fourth prize winner was in thoroughness of field culture.

**The Sixth Prize Winner.**—Mr. Fred Spindler, winner of the sixth prize, planted his tubers a little too closely in the row (12 in.), no manure was applied, neither was any commercial fertilizer, which accounts no doubt for the lower yield which he realized. Cut potatoes were used and planted immediately, which is good practice, while cultivation after each heavy rain was followed as was also spraying with Bordeaux Mixture for blight. This grower did not put so much work on his plot as did those we have mentioned, a fact which no doubt contributed to his lower yield.

**Diaries and Essays.**—The observations recorded by the different competitors in the form of diaries or essays are of unusual interest. One of the best submitted is that by Mr. Thos. Redmond, who won a prize in the competition. This essay is given below as follows:

“In order that I might be able to submit a report on the work involved in connection with this contest, I have decided to keep a general account of my work. This report will be found to contain certain observations which I have made during the summer as regards the behaviour of my crop at different dates and under different conditions of the weather.

“First of all, my plot consisted of almost exactly one tenth of an acre, being 30 yds. 9 in. long and 16 yds. wide, counting the outer margin of 15 inches. There were 19 rows, each being about 29 yards long and containing, on an average, eighty plants. The plants in the row were between twelve and fourteen inches apart.

“A free working loamy soil with good drainage was the chief character of the soil. The subsoil was somewhat of a gravelly nature. In 1911 potatoes were grown on the land which made it more unfit for growing this crop this year. I started to work the land on May 15th. On this date I ploughed the land with a Frost & Wood two-furrow plough. I did not plough any deeper than six or seven inches. On the 24th of May there came a very heavy rain, which seemed to make the ground hard again. I wished to have the ground in as good shape as possible, so I decided to spread a little manure over the ground and then plough lightly again. This is exactly what I did. I applied about three quarters of a ton of well-rotted barnyard manure to the plot. After this I again ploughed the ground lightly. The soil was now pretty well loosened, and after harrowing the ground a couple of times I had it in fairly good condition for planting. I obtained the seed on May 28th, and on the same day planted it. The tubers were rather large, so I cut the most of them, leaving about three eyes in each set. As we had a good Aspinwall Potato Planter I decided to plant my potatoes with it, as the work could be done in a



much shorter time. The seed was planted soon after cutting. I did not use any lime or land plaster on the sets, nor did I use any commercial fertilizers. The sets were planted about  $4\frac{1}{2}$  inches apart. A few of the sets missed, but mostly all grew up and produced a good even stand. On June 16th I harrowed the ground to level down the drills made by the planter, and to destroy any weeds coming up. I took good care, however, that I did not disturb any of the sets. I noticed that the potatoes were growing very quickly and began to appear in rows just above the ground. I did not touch them any more until June 27th. On this day I cultivated them for the first time, using the small teeth on the cultivator. This tore out all the weeds between the drills and put a little fresh soil around the plants. As there was no rain to moisten the ground it began to get a little hard and dry again. On July 5th I cultivated them again. This time, as the tops were larger, I was able to put more soil around them. While cultivating them I noticed that several young bugs had been hatched out by the hot sun. They were just commencing their work of destruction when, on the 7th July, I applied some Paris Green to the tops. I did not use the power sprayer for this. I mixed the green in a pail of water and by means of a brush I put it on the tops. This was only on for a couple of days when it was washed off by a heavy rain which came on July 10th. As young bugs were hatching out every day I had to put on more of the Paris Green. On July 11th, I again put on more Green in same manner as the first time. The bugs were now well poisoned, and I had no more trouble with them. A few days later it rained and the ground was full of moisture. I thought this would be a good time to 'mould' the potatoes. For this purpose I used a Frost & Wood horse-hoe. By means of this I was able to make a good drill and at the same time covered up all the small weeds in the row. This horse-hoeing seemed to help the potatoes greatly, as I could notice the rapid growth every day afterwards. During the month of August the potatoes grew well, as there was abundance of rainfall. My chief work during this time was to keep all the weeds destroyed. On the 21st of September I dug the potatoes. The tops were still green, as there was no frost as yet to hurt them. The tops had never been beaten down by a storm, and at date of digging they looked as if they would grow a great deal more. When digging the potatoes I selected twenty good hills for seed next year. I think it a great pleasure and find the work interesting. The potato crop in this district is fairly good this year. Some of the people are getting over 200 bushels per acre, while some places the yield is not so good. Taken on the whole, the average yield, I think, would be between 175 and 200 bushels per acre."

(Signed) THOMAS REDMOND.

**Extra Prize Donated.**—Owing to the unusually good work done by competitors, Mr. Whyte extended the prize list to the extent of giving \$2.00 to each boy winning over 300 points out of the 400 allowed. As will be seen by the summary of scores, this resulted in giving prizes to seven additional competitors.

**Reasons for Success.**—A very obvious fact which is revealed by a study of the returns in this competition is that the grower who worked his land well, applied plenty of fertilizers, cultivated frequently throughout the season, and put on lots of work, realized the greatest returns and a higher net profit. In two cases better returns were realized where no manure was used, but in these cases the soil was unusually fertile and in good condition.

**Yields Obtained.**—The average yield of the first six prize winners was 388 bushels per acre, that of the first thirteen 343 bushels per acre, and that where all competitors were concerned, 285 bushels. It will thus be seen that, even where the less fortunate competitors were considered, the average yield obtained was more than double the average of the Province for the past season, the latter being only 134 bushels.



V.—TABLES SHOWING SCORES, EXPENSES,  
AND PROFITS

Summary of Scores and Financial Returns.—The following is a summary of the scores allowed each competitor in each of the four points (A, B, C, D,) indicated and explained in Section XI of the Rules:

| Name                        | Age  | Variety                | Score |      |     |      |       |
|-----------------------------|------|------------------------|-------|------|-----|------|-------|
|                             |      |                        | A     | B    | C   | D    | Total |
| 1. H. S. Wright .....       | 12   | Green Mountain .....   | 87    | 90   | 91½ | 90   | 358½  |
| 2. J. H. Thompson.....      | 12   | Gold Coin .....        | 81    | 93   | 79½ | 90½  | 344   |
| 3. W. Potvin.....           | 13   | Carman No. 1.....      | 82    | 92   | 78  | 91   | 343   |
| 4. O. F. Laffin.....        | 15   | Rochester Rose .....   | 82½   | 83   | 87½ | 86½  | 339½  |
| 5. H. W. Graham.....        | 15   | Green Mountain .....   | 73½   | 88   | 81½ | 87   | 330   |
| 6. Fred Spindler .....      | 16   | Gold Coin.....         | 80    | 77   | 87  | 84   | 328   |
| 7. M. J. Haggins.....       | 15   | Carman No. 1 .....     | 77½   | 89   | 71½ | 89   | 327   |
| 8. E. E. R. McCord .....    | 10   | Green Mountain .....   | 77    | 78   | 83½ | 86   | 324½  |
| 9. Harvey Gourley.....      | 13   | “ “ .....              | 72    | 78   | 87  | 86   | 323   |
| 10. Thos. Redmond.....      | 17   | Carman No. 1 .....     | 79½   | 79   | 78  | 85   | 321½  |
| 11. Raymond Hopper .....    | 12   | Green Mountain .....   | 70½   | 80   | 77½ | 85   | 313   |
| 12. Russell Sweeney.....    | 14   | Carman No. 1 .....     | 74    | 79   | 74½ | 85½  | 313   |
| 13. W. H. McBride .....     | 14   | Rose of Erin .....     | 74½   | 75   | 85  | 82   | 316½  |
| 14. E. E. Armstrong.....    | 14   | Carman No. 1 .....     | 64½   | 75   | 79½ | 74   | 293   |
| 15. Thos. H. F. Findlay.... | 14   | Green Mountain .....   | 58    | 60   | 90  | 85   | 293½  |
| 16. J. H. Brownlee .....    | 13   | “ “ .....              | 67    | 70   | 85½ | 74½  | 297   |
| 17. Horace D. McCord .....  | 13   | “ “ .....              | 70    | 68   | 76  | 72   | 286   |
| 18. C. P. Shorkey.....      | 13   | Early Summers .....    | 71    | 55½  | 74½ | 70   | 271   |
| 19. Carman Freeman.....     | 14   | Carman No. 1 .....     | 68    | 68   | 61½ | 73   | 270½  |
| 20. C. B. Foster .....      | 13   | Rural New Yorker ..... | 60    | 75   | 77½ | 50   | 262½  |
| 21. J. W. Humphries.....    | 15   | Green Mountain .....   | 52    | 60   | 74½ | 65   | 251½  |
| 22. Chas. Nixon .....       | 17   | “ “ .....              | 71½   | .... | 62  | 50   | 183½  |
| 23. F. Mears.....           | .... | “ “ .....              | 79    | .... | 83½ | .... | 162½  |
| 24. John Holland .....      | .... | “ “ .....              | 69½   | .... | 60  | .... | 129½  |

FINANCIAL STATEMENT (Arranged in order of prizes won)

| Name                  | Address             | Total cost of<br>operating<br>1-10 acres | Total value of<br>product         | Cost of produc-<br>ing 1 bus | Net profit per<br>acre |
|-----------------------|---------------------|--|-----------------------------------|------------------------------|------------------------|
|                       |                     | \$ c.                                    | \$ c.                             | cts.                         | \$ c.                  |
| H. S. Wright.....     | Carsonby .....      | 9.10                                     | 21.38                             | .24.8                        | 122.80                 |
| J. H. Thompson .....  | Cummings' Bridge.   | 10.75                                    | 28.65                             | .20                          | 179.00                 |
| W. Potvin .....       | Bowesville.....     | 12.38                                    | 29.16                             | .25.6                        | 167.80                 |
| O. F. Laffin .....    | Dwyer Hill .....    | 6.61                                     | 20.84                             | .18                          | 142.23                 |
| H. W. Graham .....    | Huntley .....       | 13.35                                    | 23.57                             | .31                          | 102.20                 |
| Fred Spindler.....    | Billings' Bridge... | 6.00                                     | 17.60                             | .19                          | 116.80                 |
| M. J. Haggins .....   | North Gower.....    | 4.55                                     | 24.47 <sup>3</sup> / <sub>8</sub> | .9.9                         | 199.26                 |
| E. E. R. McCord ....  | Marchhurst .....    | 9.43                                     | 18.87                             | .28                          | 94.40                  |
| Thos. Redmond .....   | Bowesville .....    | 4.65                                     | 19.28                             | .14                          | 46.30                  |
| H. Gourley .....      | Kinburn .....       | 8.35                                     | 15.86                             | .21                          | 75.10                  |
| Raymond Hopper....    | Merivale .....      | 11.00                                    | 20.06                             | .28                          | 90.60                  |
| Russell Sweeney ....  | March.....          | 4.03                                     | 19.49                             | .12½                         | 154.46                 |
| W. H. McBride.....    | Carp .....          | 10.10                                    | 17.15½                            | .34                          | 70.05                  |
| Thos. H. Findlay .... | Richmond .....      | 7.15                                     | 11.70                             | .36                          | 45.50                  |
| E. Armstrong.....     | Malakoff .....      | 11.57½                                   | 14.96                             | .42                          | 33.80                  |
| J. H. Brownlee .....  | North Gower.....    | 9.80                                     | 14.89                             | .37.8                        | 50.90                  |
| C. P. Shorkey.....    | Herbert's Corners . | 3.95                                     | 6.11                              | .33                          | 21.60                  |
| Horace D. McCord ...  | Carp .....          | 8.20                                     | 9.77                              | .46                          | 15.20                  |
| Carman Freeman....    | Bowesville .....    | 2.70                                     | 10.63                             | .13                          | 79.31                  |
| C. B. Foster .....    | Twin Elm .....      | 9.50                                     | .....                             | .....                        | .....                  |
| J. H. Humphries.....  | Carp .....          | 11.91                                    | 10.96                             | .55                          | 9.50 (loss)            |
| Chas. Nixon .....     | Richmond .....      | .....                                    | .....                             | .....                        | .....                  |
| F. Mears.....         | Richmond .....      | .....                                    | .....                             | .....                        | .....                  |
| John Holland.....     | Galetta .....       | .....                                    | .....                             | .....                        | .....                  |



## VI.—PUBLIC MEETING

Nicholas St. Court House, Ottawa, 3 p.m., Nov. 30, 1912

AT WHICH

THE RESULTS OF THE CONTEST WERE ANNOUNCED

PRIZES PRESENTED

AND

ADDRESSES DELIVERED

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In order that the excellent results of the contest be made as public as possible, and that a stimulus to further endeavour along these lines be provided, a public meeting was arranged to be held in the County Court House, Ottawa, on the afternoon of November 30th, when all interested in the objects of the competition were invited to attend. Almost all of the competitors were present at this meeting, as were also their fathers, who had become much interested in the work the boys were doing. A good many other persons who are especially interested in educational matters and in rural progress generally were also present.

Mr. Whyte acted as chairman, and in calling the meeting to order gave a summary of the work accomplished in connection with the contest. One of the points upon which he laid special emphasis was that the work done by the boy on his one tenth acre plot could quite as easily be duplicated by the father on his larger field area and with quite as great a profit.

Dr. Jas. W. Robertson, Chairman of the Committee on Lands of the Conservation Commission and of the Commission on Industrial Training, Ottawa, was next called on by the Chairman to say a few words to the boys. A summary of this address is submitted below as follows:

### SUMMARY OF ADDRESS BY DR. JAS. W. ROBERTSON

After congratulating Mr. R. B. Whyte upon **the** success of the Carleton County Potato-Growing Contest, Dr. Robertson **expressed his** warm appreciation of the work of those who had been associated **with Mr. Whyte** in carrying it through. The twenty-two boys who had **persevered** to the end had not only gained satisfaction for themselves but had brought distinct credit to the county in which they lived by the **care**, enthusiasm and thoroughness with which they had done the work.

The contest itself was not really against each other as individuals, but against conditions in each of themselves and against conditions around them on the farms on which they had work to do. What had they to strive against most? The lack of knowledge and ability to do good work with satisfactory results; the want of power to reason logically upon conditions and situations; and the want of practice in judging for themselves what was best to do. They had to stir themselves also, to some extent, he supposed, against the lack of willingness and desire to do plain, everyday work in the best way possible.

In the contest the several boys had gained knowledge of soils, of plants, of insects and diseases injurious to plant growth. They had gained ability to use tools and implements and had acquired practical acquaintance with some of the best processes of cultivation. They had studied the reasons for



and against certain courses of action and had developed the power of judging for themselves what to do in the presence of these courses. The best results which had come to them were the gains in power to manage themselves and to manage things.

In all this there had been co-operation between the boys and Mr. Whyte and those who assisted him, more particularly Mr. L. H. Newman, Secretary of the Canadian Seed Growers' Association, Mr. W. T. Macoun, the Dominion Horticulturist, and Mr. Jackson, the District Representative of the Ontario Department of Agriculture. Their progress was from doing something definite which they understood, from trying to do it in the very best way, and from doing it in co-operation with others. The contest revealed co-operation not only for personal gain, through the crop and the possible winning of a prize, but also co-operation for the public benefit. The results of the contest had made a distinct contribution to the good name of Carleton County.

The potato is an important food crop in Canada, and is one of the commodities in general use on the tables of all the people. About 150 years ago it was hardly known and was not a part of the diet of any considerable number of persons. The plant is native to South America and Mexico. Some 327 years ago it was taken to Ireland by Sir Walter Raleigh, but its general cultivation and use were not begun until over a century and a half later. It is now one of the most largely grown food crops in civilized countries. In four countries the production per head of the population is as follows:-

|                                 |                            |
|---------------------------------|----------------------------|
| Great Britain and Ireland ..... | about 6 bushels per head.  |
| United States .....             | about 4 bushels per head.  |
| Canada .....                    | about 14 bushels per head. |
| Germany .....                   | about 30 bushels per head. |

Besides its direct use for food the potato is employed in the production of starch, glucose, and alcohol for commercial and mechanical purposes.

The plant exhibits four forms of vegetable growth: (1) the roots through which it may be said to eat and drink; (2) the leaves through which it breathes and changes the elements into its own substance, particularly in the form of starch; (3) the stems above ground which serve the purpose of a carrying frame or skeleton and contain the channels through which the circulation of the plant is maintained and, (4) the stems under ground which produce the tubers or potatoes of commerce.

The study by the boys under the conditions of the contest, and the work which they did, caused them to learn much about the relative productiveness, hardiness, and times of ripening of different varieties; also their merits for marketing in regard to the size, shape, colour, depth of eyes, etc. Many boys would, doubtless, be led to continue their investigations and consider the qualities of different kinds of potatoes as to their flavour, cooking qualities, and percentage of nutrients, or nourishing materials.

Some of the results of the contest are very striking and instructive, as, for example: Six boys obtained from their plots an average yield of 388 bushels per acre, as compared with an average yield of 134 bushels per acre for the whole Province of Ontario. That indicates an increase on the plots of the boys of 190 per cent. over the average crop of the Province.

The average yield on the plots of all the 22 boys was 285 bushels per acre as against 134 bushels per acre for the Province, showing an increase of 112 per cent.



The average yield on the boys' plots was more than 160 bushels per acre above the average of the neighbourhoods in which their work was done.

The yields in quantities are not more remarkable than the profits which the work showed. The results from the work of the three competitors who had the highest profits were as follows:

|                                    | Value from<br>1-10 Acre. | Value per<br>Acre. | Cost per<br>Acre. | Profit per<br>Acre. |
|------------------------------------|--------------------------|--------------------|-------------------|---------------------|
| M. J. Haggins, North Gower .....   | \$24 47                  | \$244 70           | \$45 50           | \$199 20            |
| J. H. Thompson, Cummings' Bridge . | 28 65                    | 286 50             | 107 50            | 179 00              |
| W. Potvin, Bowesville .....        | 29 16                    | 291 60             | 123 80            | 167 80              |

The cost per acre includes rent at the rate of \$3; labour charged at 20c. per hour, 10c. per horse hour; and the cost of manure, seed, and materials for spraying, etc.

This work sheds a flood of light on profits which are practically obtainable in Carleton County from small holdings of land or small areas well cultivated. The profits per acre of the six boys who had the best results are as follows: 1st, \$199.20 per acre; 2nd, \$179 per acre; 3rd, \$167.80 per acre; 4th, \$154.46 per acre; 5th, \$142.23 per acre; 6th, \$122.80 per acre.

The average profit for all the 22 boys was \$92.23 per acre. On the basis of a ten-acre field, managed in every way as these plots were by the boys themselves, the net profit last year under similar conditions would amount to \$922.30. That profit is what is left after charging the items already mentioned, including 20c. per hour for all labour given to the work. The rate at which the value of potatoes was calculated was 60c. per bushel.

There are lessons for all from the Carleton County Potato-Growing Contest which point the way for extending and enlarging the practical education of farm boys who have left school. It became an educational farming project, combining productive work and systematic study. It trained the boys into observing, thinking, learning, judging, doing, and recording. Out of this came most creditable results in the products. The best results were in the boys themselves. The "left-overs" in material things were clean land, good potatoes, and very handsome profits. The "left-overs," in the boys themselves were the evidence and substance of real culture, increased intelligence, enlarged ability, and quickened capacity, and desire to work with others for a good purpose. In brief, the contest had its finest product in the development of knowledge, power, and good-will.

#### ADDRESS BY MR. JACKSON

Mr. W. D. Jackson followed Dr. Robertson with a short account of the work he had done in inspecting the operations of the various competitors during the growing season. Each competitor had been visited twice and on each occasion every opportunity had been taken to instruct, advise, and encourage the boy right on his own plot.

In order to be able to accept without question the report of yields which was to be submitted later, careful measurements were made of each plot. These were all found to be of the required size. So impressed was Mr. Jackson by the advantage of this close association of the boy and teacher right on the land that he expressed his opinion that the very best work in rural districts, from an educational standpoint, can be accomplished by getting in close touch with the boy on his own farm. Mr. Jackson drew some fine deductions from the work and emphasized the great importance of intensive cultivation.



Mr. W. T. Macoun who has had charge of potato culture at the experimental farm for more than twenty years gave an inspiring talk on what may be accomplished in the cultivation of potatoes by the exercise of careful intensive methods.

"No crop," he said, "responds more quickly to careful scientific treatment than the potato," and he hoped that not only Carleton County but other centres would continue to give more attention to the fine points involved in the cultivation of this all-important food crop.

It was pointed out further that in a competition conducted by the *Rural New Yorker* at the time when Mr. Carman, originator of the Carman No. 1 potato, was editor, a yield had been obtained on a one-twentieth-acre plot of over 1,000 bushels to the acre. At the experimental farm a yield of 771 bushels per acre had been obtained on the experimental grounds. While it must be remembered that these yields are estimated from yields obtained on small plots and were therefore unusually large, yet they indicate something of the possibilities of what might be done by proper methods. Mr. Macoun explained further the great importance of controlling the potato bug at the proper time, saying that the yield of marketable potatoes is almost double during the latter part of the growing season, especially with main crop varieties such as those used in the Contest, hence the great importance of maintaining as nearly perfect foliage as possible. Owing to showery weather, which often prevails at the time of spraying, it was important to have an insecticide which will not only kill quickly, but will adhere well to the leaf. Paris Green kills quickly but does not stick well to the leaf, while Arsenate of Lead adheres well but does not kill so quickly as does Paris Green, hence the desirability of using a mixture of the two. After numerous experiments at the experimental farm, the following mixture has been adopted and is now commonly used at that institution; 8 ounces Paris Green, 1½ lbs. Arsenate of Lead, 40 gals. water. The Paris Green and Arsenate of Lead are mixed together in a small vessel of water, preferably warm, before being put into the barrel of water.

Mr. Macoun believed that the particularly good yields obtained by many of the competitors during the previous summer might not have been quite so large if the season had not been unusually wet, a condition which contributed to the maintenance of good foliage well on in the autumn. He offered a word of warning to those present to not let the success of the past season make them careless in regard to the above-mentioned points.

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The presentation of the prizes was made by Mr. Whyte, who congratulated each of the winners upon his excellent work. Before the meeting adjourned, he announced that this year's competition was only a beginning, as prizes would be offered again in 1913 and he hoped that ultimately a Potato Growers' Association or Club for the County would be organized. He also expressed the hope that the success which had followed the efforts in Carleton County would stimulate other districts to take up this sort of work with potatoes or some other crop.